

United States Court of Appeals For the First Circuit

No. 99-1912

No. 99-1964

CIGNA INSURANCE COMPANY,
AS SUBROGEE OF WALTHAM RACQUET CLUB, INC.

Plaintiff, Appellee/Cross-Appellant,

v.

OY SAUNATEC, LTD.,
a/k/a HELO FACTORIES LTD., a/k/a SAUNATEC PLC.

Defendant, Appellant/Cross-Appellee.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

[Hon. Patti B. Saris, U.S. District Judge]

Before

Boudin and Lipez, Circuit Judges, and
Casellas,* District Judge.

Elliott R. Feldman with whom William N. Clark, Jr., Cozen and O'Connor, Roy P. Giarrusso and Giarrusso, Norton, Cooley & McGlone were on brief for Plaintiff, Appellee.

Robert D. Rachlin with whom Eric A. Poehlmann and Downs Rachlin & Martin PLLC were on brief for Defendant, Appellant.

February 15, 2001

* Of the District of Puerto Rico, sitting by designation.

LIPEZ, Circuit Judge. On March 18, 1997, the Waltham Racquet Club suffered severe damage from a fire that began on the sauna heater located in its men's sauna room. Its insurer, Cigna Insurance Company, later instituted this subrogation action against OY Saunatec, Ltd., the manufacturer of the sauna heater, alleging that Saunatec had negligently designed the heater, negligently failed to warn, and breached its implied warranty of merchantability. Saunatec appeals and Cigna cross-appeals from a judgment entered on a jury verdict finding in favor of Cigna on its negligence claims and in favor of Saunatec on the breach of warranty claim. The jury found that the club had suffered \$853,756.37 in compensatory damages. The jury also found that the club was 35% comparatively negligent, 12% of which was attributable to the club's breach of duty of ordinary care and 23% of which was attributable to the club's failure to install sprinklers in and around the sauna room. The court reduced the damages awarded to Cigna accordingly. We affirm.

I. Background

We summarize the relevant facts, taken in the light most favorable to the verdict. The Waltham Racquet Club, originally constructed in 1974, included a men's sauna room installed by an outside contractor. The sauna room was

constructed entirely of wood, with two benches of differing height running around the walls. The contractor also installed the heater at issue in this case, a metal box placed in a corner of the room with heating elements that were designed to be covered by a mound of rocks. The heater did not, however, contain a metal grill that would prevent direct contact with the rocks. There were two wooden railings around the heater to prevent patrons of the club from accidentally coming into contact with the heater itself.

The 480 volt Saunatec heater installed in the club in 1974 was not listed by Underwriter's Laboratories (UL), contrary to Saunatec's policy. The heater was equipped with a thermostat, a control box, and a timer. At the time of its sale to the club, a high limit switch was also installed. This switch was designed to turn the heater off if it should become too hot, but it was removed at some point before the 1997 fire. The high limit switch was not the only part of the heater that had been changed by 1997. The elements, timer, control box, and thermostat had all been replaced in the time between installation and the 1997 fire. These changes had no effect upon the operation of the heater because the replacements were all compatible with the original design.

The heater was designed to be controlled directly by the thermostat and timer. The timer set the hours during which the heater would be in operation, roughly from 5:30 a.m. to 10:45 p.m. During those hours, the thermostat would turn the heating elements on or off depending upon the temperature of the room and the setting on the thermostat. Though there was some dispute over whether the thermostat's sensor was properly located in the sauna room, the jury could reasonably have found that its precise location would not have affected the running of the heater.

Though the 1997 fire is the subject of this case, it was not the first fire that the club experienced as a result of this heater. Sometime between 1978 and 1988,¹ someone left a towel on top of the heater's rocks, starting a small fire. The damage from this fire did not extend beyond the sauna room, though there was rather extensive damage to the room itself. Much of the interior woodwork and benches were scarred and burnt; the rest of the sauna suffered smoke damage. After the fire, the club had the damaged wood replaced. The heater was also examined

¹ None of the witnesses at trial could identify the exact date of this fire beyond generalized statements giving a range of possible dates. Despite some differences in the dates given by different witnesses, all were sure that the fire had occurred during the time Susan Pappas was manager of the club. Because a more precise date is irrelevant to our resolution of the issues in this case, we have adopted the dates of Pappas's tenure as the temporal boundaries of that fire.

by a licensed electrician who determined that the fire had not caused any damage to the heater.

Despite this first fire, the club continued to use the heater, placing signs in the sauna warning about the danger of fire if items were left on top of the heater. Members were also warned of this danger through notices in the club's newsletter and by members of the club's safety committee. In addition, the club instituted changes in the schedules of the maintenance crew, informing them that they were to check the sauna at least twice every day to ensure that no items had been left near the heater and to remove any items they found there. As a result, the maintenance crew might enter the men's sauna to check for discarded items as often as four times a day in addition to the daily cleanup required as part of the general routine in the club. The club also had a window installed in the door to the sauna and instructed the maintenance crew to look into the sauna for discarded items every time they passed. Finally, the club had smoke detectors located throughout the building, including one that was in the men's room immediately outside of the sauna. These detectors were directly linked to the Waltham Fire Department. The club did not install a sprinkler system, in part because of a mistaken belief that none were available that could operate in the high temperatures of the sauna.

These warnings and other measures did not completely prevent members from leaving towels and other items in the vicinity of the heater, a problem encountered by other clubs that had saunas. On March 18, 1997 at 7 a.m., the club had another fire from combustible materials left on top of the heater. By that time in the morning, the heater had been on for approximately an hour and a half, and the club had been open for an hour. The heater had been checked for discarded items late the night before and none had been found. There were no checks in the morning because the maintenance crew did not arrive until after seven. During the hour that the club was open, a member of the club either accidentally or deliberately left a towel or other combustible item on top of the heater, where it caught fire.

The fire was discovered in its early stages by members in the men's locker room who tried unsuccessfully to extinguish it. Although the fire department arrived shortly thereafter, the fire caused extensive damage to the men's and women's locker areas, the lower lobby area, the wood joists providing structural support to the second floor, and the restaurant located directly above the sauna and men's locker room. In addition, the entire club suffered smoke and heat damage. Later investigation indicated that the fire had spread quickly because the normal

operation of the heater had dried out the wood in the sauna room and made it more combustible.

Cigna insured the club. After settling the club's claim, it instituted this subrogation action against Saunatec, alleging negligent design, negligent failure to warn, negligent failure to warn of post-sale safety improvements, and breach of the implied warranty of merchantability. Jurisdiction was based upon diversity of citizenship, with Massachusetts law providing the rule of decision. After an eight day jury trial, the jury returned a special verdict, finding that Saunatec had negligently designed the heater, had negligently failed to warn the club post-sale that the addition of a metal grill would have eliminated the danger posed by the defect, and had breached its warranty to the club. The jury also found, however, that Saunatec had met its burden of proving its affirmative defense that the club had been unreasonable in its use of the heater, thus preventing Cigna's recovery on the breach of warranty claim. As to Cigna's negligence claims, the jury found the club was 35% comparatively negligent, of which 23% was related to the failure of the club to equip its sauna room with a sprinkler system. The jury assessed damages at \$853,756.37. The court reduced that

award by the club's 35% comparative negligence before entering judgment in the amount of \$554,941.64.²

Following the entry of judgment, the parties filed motions for judgment as a matter of law pursuant to Fed. R. Civ. P. 50.³ The court denied both motions and the parties appealed. On appeal, Saunatec argues that the club's products liability cause of action accrued as of the first fire and is therefore barred by the statute of limitations, that the court erred in placing the issue of the post-sale duty to warn before the jury, and that the court erroneously denied Saunatec's request that the jury be instructed on the affirmative defense of misuse. Cigna, in turn, cross-appeals, challenging the district court's jury instruction on Saunatec's unreasonable use defense and the instruction that the club could have been contributorily negligent by failing to install a sprinkler system in and around the sauna room. Although we normally examine issues raised by the appeal before turning to the cross-appeal, the misuse and unreasonable use issues are so closely related that we will

² The court also assessed pre-judgment interest at a rate of 12% per year from the date of the complaint. This interest totaled \$108,008.33 and increased the judgment against Saunatec to \$662,949.97. Saunatec has not challenged the district court's award of pre-judgment interest in this appeal.

³ Saunatec's motion was also designated, in the alternative, as a motion for a new trial pursuant to Fed. R. Civ. P. 59.

discuss them as a single issue. Otherwise, we deal with the issues raised by the parties in turn.

II. The Standard of Review

The parties appeal and cross-appeal primarily from the denial of their respective motions for judgment as a matter of law. We review the denial of these motions de novo. Foster-Miller, Inc. v. Babcock & Wilcox Canada, 210 F.3d 1, 7 (1st Cir. 2000). "[W]e examine the evidence presented to the jury, and all reasonable inferences that may be drawn from such evidence, in the light most favorable to the jury verdict." Ed Peters Jewelry Co. v. C. & J. Jewelry Co., 215 F.3d 182, 193 (1st Cir. 2000). While we do not consider "the credibility of the witnesses, resolve conflicts in testimony, or in any other manner weigh the evidence," we will "assume the veracity . . . of any admissions made and stipulations entered into by the party opposing the Rule 50 motion . . . as well as any evidence derived from disinterested witnesses that has not been contradicted or impeached." Id. After viewing the evidence from this perspective, we will reverse the denial of either motion "only if reasonable persons could not have reached the conclusion that the jury embraced." Sanchez v. Puerto Rico Oil Co., 37 F.3d 712, 716 (1st Cir. 1994). We review denial of Saunatec's "alternative

request for a new trial for an abuse of discretion, recognizing that 'the trial judge may set aside a jury's verdict only if he or she believes that the outcome is against the clear weight of the evidence such that upholding the verdict will result in a miscarriage of justice.'" See England v. Reinauer Transp. Cos., 194 F.3d 265, 270 (quoting Conway v. Electro Switch Corp., 825 F.2d 593, 598-99 (1st Cir.1987)).

Both parties have challenged the district court's jury instructions. We review these contentions de novo. See Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1159 (1st Cir. 1994). Saunatec, in particular, challenges the failure to give an instruction. In such cases, "[t]he trial court's refusal to give a particular instruction constitutes reversible error only if the requested instruction was (1) correct as a matter of substantive law, (2) not substantially incorporated into the charge as rendered, and (3) integral to an important point in the case." White v. New Hampshire Dep't of Corr., 221 F.3d 254, 263 (1st Cir. 2000). Nonetheless, parties that have preserved their challenges to jury instructions must not simply show error, but also "must show that the assigned error affected 'substantial rights,'" or, in other words, that the error was not harmless pursuant to Fed. R. Civ. P. 61. Play Time, Inc. v. LDOS Metromedia Communications, Inc., 123 F.3d 23, 29 n.7 (1st Cir.

1997). With these standards in mind, we turn to the merits of the parties' arguments.

III. The Statute of Limitations

We first address Saunatec's argument that Cigna's negligence claims⁴ based upon the 1997 fire are barred by the statute of limitations because Cigna failed to file suit in 1991, three years after the latest possible date of the first fire. Under Massachusetts law, tort claims, including negligence based product liability claims, are subject to the limitations provisions in Mass. Gen. Laws ch. 260 § 2A, which bars all claims not brought within three years of the accrual of a cause of action.⁵ The Massachusetts legislature has left this accrual

⁴ Saunatec addresses its statute of limitations argument on appeal solely to Cigna's negligence claim because of the jury's finding that Cigna's breach of warranty claim was barred by the club's unreasonable use of the heater. Though Cigna has cross-appealed from that part of the judgment, we affirm the district court on this point. See Section V, infra. Consequently, we do not analyze whether its breach of warranty claim would also survive Saunatec's statute of limitations challenge, though we note the similarities between the negligence and breach of warranty limitations statutes. See Mass. Gen. Laws ch. 106 § 2-318 (stating, in pertinent part, that "[a]ll actions under this section shall be commenced within three years next after the date the injury and damage occurs"); Bay State-Spary & Provincetown Steamship, Inc. v. Caterpillar Tractor Co., 533 N.E.2d 1350, 1354 (Mass. 1989) (noting that section 2-318 parallels the tort statute of limitations).

⁵ The statute reads: "Except as otherwise provided, actions of tort . . . shall be commenced only within three years next after the cause of action accrues." Mass. Gen. Laws ch. 260 § 2A (1992).

determination to judicial interpretation. See Cambridge Plating Co. v. Napco, Inc., 991 F.2d 21, 25 (1st Cir. 1993). The courts have adopted the date of injury as the date a cause of action usually accrues. See Cannon v. Sears, Roebuck & Co., 374 N.E.2d 582, 584 (Mass. 1978). This focus upon the date of injury arises from the inability of a plaintiff to "maintain [a negligence action] unless one has suffered injury or damage." See id. at 584. A contrary rule based upon notice of breach, the time of manufacture, or the time of sale "would be intrinsically unfair[;] . . . the plaintiff might be barred from bringing an action even before the facts arose on which he could assert a claim for relief." Id.

In the present case, there is no dispute that any claim that the club or Cigna might have for the damage done in the first fire accrued at the latest in 1988 and is therefore now barred. Cigna, however, seeks recovery solely for the damages resulting from the 1997 fire. Nonetheless, Saunatec asserts that all recovery should be barred, arguing that because there is only a single negligent act in a products liability case, there is only a single cause of action available to a prospective plaintiff. According to Saunatec, any injury that the plaintiff knows or reasonably should know is caused by the defendant results in the accrual of the unitary products liability cause of

action. Thus, under Saunatec's theory, a prospective plaintiff who fails to sue within three years of an initial injury is forever foreclosed from all recovery for the defendant's breach of duty.

Although we have been unable to discover a Massachusetts decision that directly addresses this issue, the precedents do not support Saunatec's single cause of action argument. Both the Massachusetts Supreme Judicial Court and Court of Appeals have indicated that there may be "cases in which the plaintiffs suffer successive, but distinct, injuries, which may give rise to separate causes of action," even though there is only a single negligent act. Olsen v. Bell Tel. Labs., Inc., 445 N.E.2d 609, 612 (Mass. 1983); Gore v. Daniel O'Connell's Sons, Inc., 461 N.E.2d 256, 259 (Mass. App. Ct. 1984) (noting the possibility that a cause of action based upon a second, distinct illness would not be barred by the statute solely because the defendant's conduct had also caused a prior illness). Moreover, other jurisdictions have directly addressed the argument Saunatec raises here and have refused to use an initial injury to bar actions based upon a later, distinct injury. See Fearson v. Johns-Manville Sales Corp., 525 F.Supp. 671, 674 (D.D.C. 1981) (cited in Olsen and Gore) (rejecting single cause of action argument and holding that onset of asbestosis did not foreclose

cause of action based upon the later onset of lung cancer); VaSalle v. Celotex Corp., 515 N.E.2d 684, 686 (Ill. App. Ct. 1987).

We conclude, therefore, that under Massachusetts law, the fact that there is only one negligent act, i.e., the design of the heater or the failure to provide post-sale warnings, does not mean that there was only a single cause of action that accrued at the time of the first injury. Instead, if there are multiple injuries, there will be multiple causes of action with multiple dates of accrual if the injuries are "separate and distinct." The fires in this case satisfy that requirement. Though they were each caused by the same design defect, they are otherwise unrelated. At least nine years passed between the two fires. The first fire did not in any way cause or contribute to the second. Because the fires are temporally and causally distinct, we conclude that Massachusetts courts would hold that the two causes of action arising from the two fires have different dates of accrual. As Cigna has filed this suit within three years of the second fire, or in other words within three years of the injury that caused the second cause of action to accrue, its claim is not barred by the statute.

In an attempt to escape this conclusion, Saunatec points to our recent decision in Nicolo v. Philip Morris, Inc.,

201 F.3d 29 (1st Cir. 2000). Relying upon Nicolo, Saunatec argues that a plaintiff may only maintain two causes of action in cases that involve a second latent injury that was not reasonably foreseeable at the time of the first palpable injury. We disagree. In Nicolo, where we construed Rhode Island statutes and case law similar to the Massachusetts law at issue here, we held that a products liability case could present two distinct causes of action. See id. at 35. The plaintiff in Nicolo had suffered two injuries from a single wrongful act. The first injury was "a series of smoking-related illnesses, including asthma, emphysema, and chronic obstructive pulmonary disease." Id. at 30. The second injury, lung cancer, had been diagnosed several years after the onset of her respiratory ailments. As in the present case, the plaintiff had only sought recovery for her second injury, cancer.

In arguing that the foreseeability of the second injury is the "touchstone" of whether a claim may be maintained for that injury, and that the foreseeability of the second fire here bars a claim for damages based upon it, Saunatec has mistaken our discussion of when a second cause of action for the latent injury accrues for a discussion of whether there can be two causes of action at all. Contrary to Saunatec's claims, our holding in Nicolo that the cause of action for cancer was separate from the

cause of action for the respiratory ailments did not involve the question of the reasonable foreseeability of a second injury which had not yet occurred. The concept of reasonable foreseeability entered our analysis only because of the unique difficulty of detecting cancer. As with all latent diseases, cancer can exist undetected in an individual throughout its early stages. In other words, a plaintiff could be injured long before that injury was detected. Nicolo presented a variant of the usual latent disease case because the plaintiff may have been afflicted with both undetectable cancer and detectable respiratory illnesses at the same time. Under the normal rules of accrual linked to the date of injury, both causes of action accrued at the same time, even though one injury may have been effectively unknowable. See Cannon, 374 N.E.2d at 584.

Both Rhode Island and Massachusetts, however, have adopted a discovery rule, an exception to the normal rules of accrual governing the accrual of causes of action in which an injury or its cause is inherently unknowable. See Nicolo, 201 F.3d at 35; Hanson Housing Auth. v. Dryvit Sys., Inc., 560 N.E.2d 1290, 1293 (Mass. App. Ct. 1990). The discovery rule prevents the cause of action of an injured plaintiff from accruing "until the plaintiff learns, or reasonably should have learned, that he has been harmed by the defendant's conduct." White v. Peabody

Constr. Co., 434 N.E.2d 1015, 1020 (Mass. 1982). In analyzing whether the plaintiff could have reasonably foreseen that at the time of her respiratory illnesses she was in the early stages of cancer,⁶ we were applying the discovery rule to determine when the cancer cause of action accrued. See Nicolo, 201 F.3d at 35-36 (noting that cancer "does not lend itself to lay identification," but that "symptoms indicative of cancer" along with other information about the disease may mean that a plaintiff reasonably should know she had the disease). Thus, Nicolo stands for the proposition that, in multiple injury cases in which the second injury is latent, a second cause of action does exist, but it may be time barred if the plaintiff should have discovered that second injury at the time of the first.

The present case, however, does not require us to analyze the discovery rule and its foreseeability component. There is nothing inherently unknowable or latent about the injuries the club sustained as a result of Saunatec's negligence. The fact that the second fire became a reasonably foreseeable future possibility because of the first fire is irrelevant.

⁶ In order for a cause of action to accrue under the discovery rule, it is only necessary that the plaintiff know about the injury and know that the injury was caused by the defendant. A cause of action can accrue though the plaintiff is unaware of either the full extent of the injury or of how the defendant violated its legal duty. See Bowen v. Eli Lilly & Co., 557 N.E.2d 739, 741 (Mass. 1990).

Though caused by a single wrongful act, the two fires are otherwise unrelated with no possibility that they existed at the same time. Consequently, they give rise to two causes of action with two different dates of accrual. This case was filed within three years of the accrual date of that second cause of action and is therefore timely.⁷

Saunatec's fears that the accrual rule in this case will result in a multitude of lawsuits from the single act of selling a defective product reflect a misunderstanding of current law. In setting the date of injury as the date of accrual, the Massachusetts courts recognized that "manufacturers and retailers [may be required] to defend suits based on a product which they may have placed in the stream of commerce years ago." Cannon,

⁷ To emphasize the error of Saunatec's foreseeability/discovery argument, we note that a plaintiff's notice of breach or injury is examined under the discovery rule to determine whether a claim that would otherwise be barred by the normal rules of accrual should nonetheless be preserved to prevent the harsh result of barring a claim before the plaintiff had knowledge of it. Saunatec, however, seeks to use notice of breach to defeat rather than to preserve claims. We have been unable to discover any authority for the proposition that once a plaintiff has been injured in a manner sufficient to give notice of a breach of duty, that notice may then be used to bar claims arising from later and separate injuries that would, absent this notice, not otherwise be barred. By barring a plaintiff from maintaining a claim before that claim has arisen, Saunatec's suggested application of notice in this case implicates the same concerns that prompted Massachusetts courts to reject notice of breach as the normal rule of accrual. See Cannon, 374 N.E.2d at 584.

374 N.E.2d at 584. Our holding today in no way increases this burden. But for the fortuity of the first fire, Saunatec would not be able to argue that the statute of limitations bars this action, even though it arises approximately twenty-three years after its product was sold. Allowing Cigna to proceed based upon the second fire prevents the injustice attendant upon foreclosing its later-arising cause of action solely because of an initial injury. This does not mean, however, that Saunatec fails to gain any benefit from the first fire. Though the notice of defect implicit in these first injuries is not properly a part of the test for accrual of a cause of action, it is the cornerstone of the unreasonable use and comparative negligence defenses in products liability cases. In addition to the ordinary difficulties that the passage of time places upon a plaintiff to prove its case, a plaintiff that continues to use a product after an initial injury will find, as Cigna did, that its recovery is reduced or prevented by these defenses. Moreover, as the district court noted, though "[e]ach fire would constitute an actionable injury, . . . after the first successful lawsuit, these defenses would cut off future claims." Cigna Ins. Co. v. OY Saunatec, Ltd., 59 F.Supp. 2d 163, 165 (D. Mass. 1999). Cigna's negligence claim is not barred by the statute of limitations.

IV. Post-Sale Duty to Warn

Saunatec next contends that the district court erred when it instructed the jury on the post-sale duty to warn. Saunatec argues that the duty to warn is inapplicable in the present case for three principal reasons.⁸ First, it contends that its product was not defective and therefore the duty to warn never arose. Second, it claims that because the risks associated with the defect were open and obvious from the time of sale, it owed the club no duty to warn. Finally, it argues that even if the risks were not open and obvious at the time of sale, the first fire effectively warned the club of those risks, thereby extinguishing Saunatec's duty to warn. We address each of these arguments in turn.

A. The heater's design defect

Under Massachusetts law, there is no post-sale duty to warn unless the product at issue was negligently designed as originally sold. See Williams v. Monarch Machine Tool Co., 26 F.3d 228, 232 (1st Cir. 1994). When the design defect is present

⁸ Saunatec also contends in its briefs that the jury could not have found a duty to warn because there was insufficient evidence demonstrating the feasibility of such a warning. We reject this argument out of hand. The evidence at trial indicated that on at least one occasion in the past, Saunatec had been able to notify its customers of a problem with one of its heater components by releasing that information through its distributors. The jury was entitled to conclude that Saunatec could have done the same in the present case.

at the time of sale, the manufacturer "has a duty to take reasonable steps to warn at least the purchaser of the risk" as soon as it "learns or should have learned of the risk created by its fault." doCanto v. Ametek, Inc., 328 N.E.2d 873, 878 (Mass. 1975) (citing Carney v. Bereault, 204 N.E.2d 448 (Mass. 1965)). The district court correctly instructed the jury that it could only find that Saunatec had a post-sale duty to warn of safety improvements if it first found that "the heater was negligently or improperly designed or unsafe at the time it was sold."

There was ample evidence to support a conclusion that the heater was negligently designed. According to the UL standards in existence at the time of the sale of the heater,⁹ all heaters must include some form of guard to prevent combustible materials from coming into contact with any part of the heater that exceeded 536 degrees Fahrenheit. The "guard" could include the rocks that are normally piled on top of the heating elements in a sauna heater. If the rocks prevented contact, the industry standards at the time of sale generally did not require the addition of a separate metal grill on top of the

⁹ UL standards were admitted primarily as evidence of the generally accepted industry safety standards for the manufacture of these heaters. Testimony at trial indicated that these standards were created with input from the manufacturing industry and thus served as proxies for industry safety standards.

heater. In the case of the club's heater, however, the rocks were an insufficient barrier between combustible materials and the high temperature parts of the heater. Under the UL standards then in force, Saunatec was required to modify its heater, either by adding a metal grill or by increasing the dimensions of the heater to allow for more rocks to be included on top of the elements. Without these design changes, the heater failed to adhere to the industry safety standards. The UL standards also required that heaters pass a drape test. Under this test, cloth material was draped over the heater to determine if the placement of a towel on the heater would start a fire. Evidence at trial demonstrated that the club's heater could not have passed this test. The jury was justified in concluding that the heater had been negligently designed at the time of sale, thus triggering a duty to warn of post-sale safety improvements.

B. The nature of the danger

Though a negligently designed product is an essential prerequisite for the duty to warn, the duty does not arise in every case involving a negligently designed product. Saunatec is correct in its general contention that, when the dangers associated with a defective product are open and obvious, there is usually no duty to warn "because a warning will not reduce the likelihood of injury." Colter v. Barber-Greene Co., 525 N.E.2d

1305, 1312 (Mass. 1988). To fall under this rule, the dangers must have been sufficiently obvious to say that the plaintiff was "fully aware of the risks posed by the product." Morrell v. Precise Eng'g, Inc., 630 N.E.2d 291, 293 (Mass. App. Ct. 1994). Saunatec unpersuasively contends that the risks posed by the heater were open and obvious from the time of sale because all people are aware that there is a remote risk of fire associated with leaving towels on sauna heaters even when those heaters are properly designed.

The knowledge of a general risk associated with an entire class of properly designed products, however, is not sufficient to allow the conclusion in this case that at the time of sale the club was "fully aware of the risks posed by the product." Morrell, 630 N.E.2d at 293. The evidence at trial indicated that, in contrast to properly designed heaters that will not normally cause fires even when a towel is left on them for an entire day, the club's defectively designed heater could start a fire in under ten minutes after a towel was left on it. The differing times to combustion of a properly designed heater versus the club's heater were solely the result of the defective design of the latter. Though the lack of a grill contributed to the danger posed by the club's heater, it was not a signal of a design defect. Many heaters sold at that time did not have

grills and were not defective, just as the club's heater might not have been defective if the rocks on top of the heater had provided a more effective guard. In short, Saunatec cannot escape the duty to warn engendered by its negligent design because this heater posed an inordinate risk of fire that was by no means open and obvious from the time of sale.

C. Warning of design improvements

Saunatec next contends that the first fire effectively notified the club of the danger posed by its heater, making any warning that Saunatec might have given superfluous. The jury found that the first fire gave the club notice that its heater was defective. See Section V.D infra. That fire may also have made the club fully aware of the danger posed by the heater. Nonetheless, it is still not sufficient to extinguish Saunatec's duty to warn. Though the duty to warn principally extends to warnings of the danger created by a design defect, it is not limited to warning solely of those dangers. Massachusetts courts have indicated that in certain cases, the manufacturer of a negligently designed product also has a duty "to warn at least the purchaser of changes which eliminate or tend to eliminate the risk created by the manufacturer's initial fault." doCanto, 328 N.E.2d at 878.

This is one of those cases. The jury could reasonably conclude that Saunatec should have known of the defect and that Saunatec had developed a safety improvement that would have eliminated the danger that arose from its design defect. Saunatec conducted tests upon its heaters in order to ensure that they met the UL standards. When a particular model failed to meet those standards, Saunatec would change the design. Though not all heaters that Saunatec manufactured at the time this heater was designed needed metal grills to satisfy the UL, Saunatec knew that some did. Indeed, by 1975 or 1976, Saunatec had modified its designs to include metal grills upon all heaters sold in the United States. In 1978, the UL changed its standards to require that all heaters it listed include a metal grill as shielding between combustible materials and the heating elements.¹⁰ Finally, the club's expert also testified at length that the addition of a metal grill was feasible and would have both cured the defect in the heater and prevented both fires.

¹⁰ Saunatec latches on to the UL standards, and the 1978 change that required grills on heaters, to argue that the duty to warn cannot be based upon changes in the relevant UL standards or upon later design improvements that may be associated with changes in those standards. Saunatec is refuting an argument that Cigna does not make. Because the district court and Cigna based the duty to warn in this case upon the defective design of the heater at the time of sale, we decline to address whether changes in the UL standards or later design improvements in the heater would trigger the duty to warn even if there were no showing of an initial design defect.

Furthermore, the rationale that underlies the refusal to impose a duty to warn of open and obvious dangers cannot apply here to defeat Saunatec's duty to warn of design changes. Unlike warnings of open and obvious dangers, which are not required under Massachusetts law because it is unlikely that such a warning would "reduce the likelihood of injury," a warning of a design change that can eliminate the risk posed by a defect is, at least potentially, effective.¹¹ See, e.g., Colter, 525 N.E.2d at 1312. In the present case, the evidence indicated that if the club had heeded a warning to install a grill on the heater, it would have completely eliminated "the risk created by [Saunatec's] initial fault." Consequently, we conclude that this issue was properly before the jury, even if the first fire fully apprised the club of the dangers associated with its heater. The district court was correct in instructing on this issue.

V. Misuse and Unreasonable Use

Saunatec and Cigna each argue that the district court erroneously instructed the jury on the issue of the two related affirmative defenses, misuse and unreasonable use, that Saunatec interposed against Cigna's claims. Saunatec argues that there

¹¹ Likewise, although we have concluded that the danger was not open and obvious at the time of sale, a contrary conclusion on that point would not have eliminated Saunatec's duty to warn because, as discussed above, Saunatec still would have been required to warn of design improvements.

can be no dispute that leaving towels upon the heater, either deliberately or accidentally, was a misuse of the heater. Because misuse, whether by the club or a patron, is a complete defense to a claim of negligent design, Saunatec contends that the court should have either granted judgment in favor of Saunatec or instructed the jury on the issue. In its cross-appeal, Cigna argues that the evidence did not support an instruction on Saunatec's affirmative defense that the club had unreasonably used the heater. We find no merit in either of these contentions.

Under Massachusetts products liability law, misuse of a product is an affirmative defense to a negligent design claim while the unreasonable use of a product is an affirmative defense to a claim of breach of the implied warranty of merchantability. Both defenses eliminate all recovery under the legal theories they address. See Allen v. Chance Mfg. Co., 494 N.E.2d 1324, 1327 (Mass. 1986); Back v. Wickes Corp., 378 N.E.2d 964, 969 (Mass. 1978). Each defense also requires an examination of precisely how the plaintiff "misused" the defendant's product. Though there are similarities in the type of "misuse" that comprises each defense, this case serves as a reminder that each defense has distinct contours. Before examining these defenses, however, we first turn to an examination of the respective causes of action to which they respond.

A. Negligent design and breach of the implied warranty of merchantability.

As in all negligence claims, an action for negligent design begins with the allegation that the defendant has breached a duty and that this breach of duty has caused actual harm. Manufacturers have a duty to design products with reasonable care and are held to the standard of "an ordinary reasonably prudent designer in like circumstances." Fahey v. Rockwell Graphic Sys., Inc., 482 N.E.2d 519, 523 (Mass. App. Ct. 1985) (overruled on other grounds in Allen, 494 N.E.2d at 1327 n.2); doCanto v. Ametek, Inc., 328 N.E.2d 873, 877 (Mass. 1975). "[T]he focus in design negligence cases is not on how the product is meant to function, but on whether the product is designed with reasonable care to eliminate avoidable dangers." Uloth v. City Tank Corp., 384 N.E.2d 1188, 1191 (Mass. 1978). A manufacturer always has a duty when designing products to consider the environment in which the product will be used and must design against all reasonably foreseeable uses which could arise from that environment. See McIsaac v. Didriksen Fishing Corp., 809 F.2d 129, 132 (1st Cir. 1987); Back v. Wickes Corp., 378 N.E.2d 964, 969 (Mass. 1978). In determining the environment in which a particular product is used, and thus also the reasonably foreseeable risks attendant upon that setting, we look to the market that the manufacturer has chosen. See McIsaac, 809 F.2d at 132 (holding that because

the defendant manufacturer did not caution the commercial marine market against using its product, it was responsible for anticipating reasonably foreseeable risks associated with use in that setting). This duty arises from a social policy that places an increased responsibility for ensuring the safety of a product "upon the manufacturer, who stands in a superior position to recognize and cure defects." Uloth, 384 N.E.2d at 1192.

Actions under Massachusetts law for breach of the implied warranty of merchantability are the functional equivalent of strict liability in other jurisdictions, and they are as comprehensive as the strict liability provision in section 402A of the Restatement (Second) of Torts. See Back, 378 N.E.2d at 968-69; Swartz v. General Motors Corp., 378 N.E.2d 61 (Mass. 1978). The warranty duty is "one imposed by law as a matter of social policy, and not necessarily one which the defendant has acquired by contract."¹² Back, 378 N.E.2d at 969. Manufacturers warrant that their products will be "fit for the ordinary purposes for which such goods are used," and, as in negligent design claims, ordinary purposes include both intended and foreseeable uses of a product. Id. (quoting Mass. Gen. Laws ch.

¹² Unlike a contract based warranty, the implied warranty applies even though the parties are not in privity, see Hoffman v. Howmedica, Inc., 364 N.E.2d 1215, 1218 (Mass. 1977), and a manufacturer or seller may not disclaim or limit the warranty. See Back, 378 N.E.2d at 969.

106 § 2-314(2)(c)). Though the "inquiry [in a breach of warranty action] focuses on product characteristics rather than on the defendant's conduct [as in negligent design], ... the nature of the decision [in both actions] is essentially the same." Id. at 970. The jury in a breach of warranty action weighs factors just as in a negligent design action, considering "among other factors, the gravity of the danger posed by the challenged design, the likelihood that such danger would occur, the mechanical feasibility of a safer alternative design, the financial cost of an improved design, and the adverse consequences to the product and to the consumer that would result from an alternative design." Id. (quotation omitted). Furthermore, a finding that a defendant has negligently designed a product is tantamount to a finding that the product is unfit for ordinary use. See Hayes v. Ariens Co., 462 N.E.2d 273, 275 (Mass. 1984) (overruled on other grounds in Vassallo v. Baxter Healthcare Corp., 696 N.E.2d 909 (Mass. 1998)); Richard v. American Mfg. Co., 489 N.E.2d 214, 215 (Mass. App. Ct. 1986).

B. A defendant's first line of defense: unforeseeable misuse.

Though both duties are expressions of a social policy that places responsibility upon manufacturers to eliminate defective products, neither negligent design nor warranty liability is absolute. See Colter v. Barber-Greene Co., 525 N.E.2d 1305, 1310 (Mass. 1988); Back, 378 N.E.2d at 969. The

cornerstone of both duties is the anticipation of foreseeable uses. Neither theory requires manufacturers to design against uses that could not be foreseen. In negligent design, a plaintiff "must prove that the defendant failed to exercise reasonable care to eliminate avoidable or foreseeable dangers to the user." Bolduc v. Colt's Mfg. Co., 968 F. Supp. 16, 17 (D. Mass. 1997) (citing Uloth v. City Tank Corp. 384 N.E.2d 1188 (Mass. 1978)). Likewise, because the ordinary uses of a product include "both those uses which the manufacturer intended and those which are reasonably foreseeable," Back, 378 N.E.2d at 969, the manufacturer has warranted that its "product will withstand, in a reasonably safe manner, foreseeable 'misuse' incident to or arising out of the product's intended use." Venezia v. Miller Brewing Co., 626 F.2d 188, 190 (1st Cir. 1980).

Thus, so long as a plaintiff can "prove that at the time of his injury he was using the product in a manner that the defendant seller, manufacturer, or distributor reasonably could have foreseen," a defendant manufacturer may not escape liability solely by showing that the plaintiff has used the product in a way that was not intended by the manufacturer. Cocco v. Deluxe Sys., Inc., 516 N.E.2d 1171, 1174 (Mass. App. Ct. 1987) (quoting Allen v. Chance Mfg. Co., 494 N.E.2d 1324 (Mass. 1986)); Venezia, 626 F.2d at 191 (noting that uses protected by the warranty include those that are "the 'probable ancillary consequences of

normal use,' and the consequences 'incident to the normal and expected use' of a particular product") (citing Turcotte v. Ford Motor Co., 494 F.2d 173, 181 (1st Cir. 1974)). On the other hand, if a plaintiff has used a product in a manner that the manufacturer could not have foreseen given the product's intended use, the manufacturer may escape negligent design liability completely through the misuse affirmative defense. See Robinson v. Boston Housing Auth., Docket No. 964972, 1999 WL 791947, at *1-2 (Mass. Super. Ct. Aug. 9, 1999) ("The deliberate misuse of a product is a complete defense to a claim of negligent design."). Likewise, this type of unforeseeable misuse will also bar a breach of warranty action. See Allen, 494 N.E.2d at 1326 ("Foreseeability of use is an element of the plaintiff's case."); Venezia, 626 F.2d at 191. Indeed, to allow recovery for uses that could not have been foreseen at the time of manufacture would be to hold the manufacturer to a duty that it could not possibly fulfill.

C. A defendant's second line of defense: foreseeable but unreasonable use.

A plaintiff's path is not wholly cleared, however, just because its use of a product was foreseeable. In a negligent design action, a defendant may always prove comparative negligence in an attempt to reduce or prevent recovery. See

Mass. Gen. Laws ch. 231 § 85.¹³ Similarly, in a breach of warranty action, a defendant can raise the unreasonable use defense, arguing that though the plaintiff's use was foreseeable, "the plaintiff's unreasonable conduct in the face of a known defect was a breach of duty that caused the injury." Allen, 494 N.E.2d at 1326-27 (noting that the unreasonable use defense arises only when there has been a foreseeable use of the product). To prevail on the unreasonable use defense, the defendant has the burden of proving that the plaintiff subjectively knew that the product was defective and dangerous, that, despite that subjective belief, the plaintiff's use of the product was objectively unreasonable, and that the plaintiff's conduct was a cause of the injury. See id. at 1326. If all the requirements of the defense are met, the plaintiff cannot recover for breach of warranty, while the defendant may have also proved that the plaintiff breached its own duty of care and was thereby comparatively negligent. See Richard, 489 N.E.2d at 215.

¹³ Section 85 reads, in pertinent part:
Contributory negligence shall not bar recovery in any action by any person or legal representative to recover damages for negligence resulting in death or in injury to person or property, if such negligence was not greater than the total amount of negligence attributable to the person or persons against whom recovery is sought, but any damages allowed shall be diminished in proportion to the amount of negligence attributable to the person for whose injury, damage or death recovery is made.
Mass. Gen. Laws ch. 231 § 85.

Nonetheless, the comparative negligence and the unreasonable use defenses are not precisely analogous. While evidence of unreasonable use is potential evidence of comparative negligence, the reverse is not necessarily true. A user may breach its duty of care without knowing the product was defective or dangerous and thus may be comparatively negligent without finding its recovery for breach of warranty barred by the unreasonable use defense. See Hallmark Color Labs. v. Damon Corp., 477 N.E.2d 1052, 1053-54 (Mass. App. Ct. 1985) (noting that ordinary negligence is irrelevant to a breach of warranty claim). Furthermore, even in cases in which a plaintiff's actions satisfy the requirements of both defenses, each defense has a different effect upon plaintiff's recovery. Comparative negligence reduces recovery by a percentage amount corresponding to the plaintiff's negligence unless that negligence is greater than the defendant's, at which point all recovery is barred. See Mass. Gen. Laws ch. 231 § 85. Unreasonable use by the plaintiff, however, will foreclose all recovery for breach of warranty. See Allen, 494 N.E.2d at 1327.

D. The application of the misuse and unreasonable use defenses in the present case.

Because Cigna alleged both breach of warranty and negligent design, both defenses are potentially applicable here. We conclude, however, that the district court did not err, either

in instructing on unreasonable use or in declining to instruct on misuse. Turning first to the misuse defense, the evidence at trial indicated that a towel or other combustible object had been left on the heater, thus starting the fire. Saunatec argues on appeal that this was a misuse of the heater that the district court improperly disregarded when it refused to instruct on the misuse defense. Even if the towel had been intentionally placed upon the heater, however, this action is not sufficient as a matter of law to justify an instruction on the misuse defense. Saunatec bases its argument upon an imprecise and incorrect definition of what the Massachusetts courts have meant by the term "misuse" as it applies to the misuse defense. To be sure, any use of a product in a manner other than that intended by the manufacturer would be considered in layman's terms a "misuse" of that product. Thus, leaving towels on a heater is arguably a "misuse" of that heater as it was not intended to function as a clothes dryer. Adding to the confusion created by the lay definition is that some courts have mistakenly used the term "misuse" to refer to both the misuse and the unreasonable use defenses, while others have failed to see the real differences that exist between these two defenses. See Downs v. Gulf & Western Mfg. Co., 677 F. Supp. 661, 664 (D. Mass. 1987) (using term "misuse" to describe unreasonable use); Fahey, 482 N.E.2d at

526 n.13 (noting that "unreasonable use" and "unforeseeable misuse" appear to be interchangeable terms).

Nonetheless, "misuse" in the context of the misuse defense is a legal term of art with a distinct and decidedly different meaning than the lay concept of product "misuse." See Allen, 494 N.E.2d at 1327 n.2 (overruling Fahey by rejecting its suggestion that the terms are interchangeable). "'Unforeseeable misuse' concerns the question whether the defendant could have reasonably foreseen that the plaintiff would misuse the product in the way he did." Id. In order to justify a misuse defense, Saunatec would therefore need to show that the club's misuse of the heater was unforeseeable. If the club or its members had used the sauna heater to grill steaks, an example cited during the trial, we would have no difficulty concluding that such a "misuse" could not be foreseen by a sauna manufacturer and that Saunatec would be entitled either to an instruction on the defense or judgment in its favor.

Contrary to Saunatec's representations in its briefs, however, there was ample evidence at trial to show that the accidental or even intentional draping of a towel on the heater was a foreseeable use. Indeed, the UL standards, which were formulated with industry input, explicitly required heaters to pass a test designed to mimic the effects of placing a towel upon a heater. This test, in and of itself, indicated that sauna

manufacturers could foresee that towels and other combustibles might occasionally be left on top of heaters. Because it was foreseeable that club patrons would leave towels on the heater, the district court correctly held that a misuse instruction was not justified. See Cocco v. Deluxe Sys., Inc., 516 N.E.2d 1171, 1174 (Mass. App. Ct. 1987) (affirming the refusal to give an intentional misuse instruction where the plaintiff's hands were injured while clearing a jam on a shredding machine when a co-worker accidentally triggered an unguarded on-off switch because "[i]t was undisputed that both jamming and that workers would use their hands to clear the jams were foreseen").¹⁴

The unreasonable use defense, on the other hand, is fully applicable to foreseeable uses of a product and "concerns the reasonableness of the plaintiff's alleged conduct" while undertaking that foreseeable use. Allen, 494 N.E.2d at 1327 n.2. Cigna concedes that Saunatec has proved two of the three

¹⁴ Saunatec also contends that the district court "appears to have reasoned that the misuse defense was not applicable since it appeared that the Club did not misuse the product, but rather, that a patron of the Club misused the product." (Emphasis in original). We express no opinion upon whether, if this were a fair reading of the district court's opinion, such a holding would conform to Massachusetts law because we conclude that Saunatec is attacking a rationale never advanced by the district court in its opinion. Indeed, its opinion on the misuse point is wholly in line with our conclusion that the misuse instruction was not warranted because Saunatec had failed to demonstrate the type of unforeseeable misuse required to justify this instruction.

predicates for the defense, namely that the club's use, though foreseeable, was objectively unreasonable and that this use caused the fire, but contends that the instruction was nonetheless improper because Saunatec failed to meet its burden of proving that the club subjectively knew that the heater was both defective and dangerous. According to Cigna, to satisfy this requirement, Saunatec needed to prove that the club was aware that the heater was defective specifically because it lacked a metal grill.

We have been unable to find a requirement that a plaintiff must actually know with technical specificity the nature of the defect in the product it is using. Nor do we agree that the Massachusetts courts would adopt such a rule. To do so would be to stand the unreasonable use defense on its head by allowing consumers to escape its application simply by deliberately maintaining technical ignorance in the face of mounting evidence that a product is defective. On the contrary, it is enough to show that the plaintiff knew the product was defective in some way, rather than showing that it knew the technical elements of the defect. In the present case, the jury was entitled to infer that the club subjectively knew that the heater was both defective and dangerous. Pasquale Franchi, the president of the corporation that owned the club, testified that he had supervised the installation of several saunas. The jury

could therefore infer that he was aware of how sauna heaters generally worked and that this general awareness would have extended to understanding that, as Cigna's own expert testified, properly designed heaters do not catch fire, not even when draped with a towel. Given this evidence, it would not be unreasonable for the jury to conclude, as it apparently did, that after the first fire, the club subjectively knew that its heater had some type of defect and that, because of that defect, the heater posed a danger that the club knew could only be alleviated through fairly extensive remedial measures. The district court did not err in giving an instruction on unreasonable use.

VI. The sprinkler instruction

Finally, Cigna challenges in its cross-appeal the district court's instruction on the club's duty to install sprinklers following the first fire. Cigna contends that Saunatec has failed to provide the evidentiary basis required to impose such a duty on the club. The district court gave the following instruction on a property owner's duty to install sprinklers:

Now, let me talk to you about the issue of sprinklers, which you've heard something about, because I need to give you a separate instruction on this issue.

The defendant also claims that the Club was negligent in its failure to install a sprinkler system in the sauna enclosure. That's Question No. 12 [on the special verdict form].

Ordinarily, a building owner such as the Waltham Racquet Club has no duty to provide its building with any sort of firefighting or fire protection equipment and so cannot be held liable for failing to do so. Also, there is no statutory or building code requirement for sprinklers. However, a building owner may be held liable for negligently failing to install fire protection devices if he uses dangerously inflammable material that create a foreseeably substantially greater probability of a fire spreading.

It is up to you to determine whether the defendant has proven that the Club had a duty to install sprinklers in the men's sauna and is negligent for failing to do so.

This instruction followed the court's general instruction on comparative negligence in which it indicated that the jury was to consider whether the club had fulfilled its "duty to exercise the care that a reasonably prudent person would have exercised under similar circumstances."

The panel is unable to agree on the propriety of the sprinkler instruction. The majority concludes that the sprinkler issue was properly before the jury. The majority's analysis is set forth in subsection A infra. I, however, would not find a duty to install sprinklers on these facts. That different view is set forth in subsection B infra.

A. The majority analysis

Absent an increased risk of fire, Massachusetts common law does not impose any obligation on a building owner to install sprinklers or keep other specialized fire apparatus available.

Conversely, the Supreme Judicial Court has recognized a special duty, or at least contemplated that a jury could find such a duty, where the owner had knowledge of a "particular danger of fire." Little v. Lynn & Marblehead Real Estate Co., 16 N.E.2d 688 (Mass. 1938). The obvious examples are of highly inflammable or explosive materials, but Massachusetts courts do not appear to have imposed any very rigid formula on the source or degree of the increased risk.

Here, the jury had ample basis for concluding that the club knew of a "particular danger of fire" well in excess of what might be expected in the ordinary house or office. The particular danger lay in the combined presence of a strong heat source which past experience had shown was not adequately shielded; in patently inadequate new precautions taken after the first fire; and in a surrounding envelope of dried out wood that the evidence showed to be specially inflammable. There is nothing surprising about the jury's decision to allocate 35 percent of the damage to the club, leaving the manufacturer to bear the other 65 percent, nor in attributing a portion of the 35 percent to the failure to install a sprinkler.

Cigna does not object to the generally phrased instruction given by the judge as to the sprinkler system but only to the result. This amounts to saying that no rational jury could find on these facts that there was "a particular danger of

fire" sufficient to require the club to take extra precautions of which the most obvious, next to supplying a grill, would have been to install a sprinkler system. This is exactly the kind of practical day-to-day judgment in which a jury's good sense ought to be respected. Here, no basis exists for an appellate court to call it unreasonable.

No Massachusetts case creates any general rule inconsistent with what the jury did in this case or rejects a jury award on the facts anything close to those before us. Quite possibly the instruction given here, or the result arrived at, would not be permitted in some other jurisdiction; but the language and results in decisions of different state courts dealing with sprinklers or other fire precautions is far from uniform; and nothing in Massachusetts case law appears to limit the duty to "extraordinary" hazards, "explosives," or the like.

Fireman's Fund Am. Ins. Co. v. Almacenes Miramar, Inc., 649 F.2d 21, 25 (1st Cir. 1981), the only pertinent First Circuit precedent, rejected a claim that a sprinkler should have been installed in a warehouse where one of the tenants stored a chemical rub that created a somewhat greater risk of fire than normal. But putting aside the fact that this case involved a construction of Puerto Rico law and not the law of Massachusetts, there is a singular distinction: in Fireman's Fund, there was an increased risk of fire once the substance ignited but no

indication of any accompanying unusual source of ignition. Here, by contrast, the sauna itself is a proven dangerous heat source set in a peculiarly combustible surrounding of dried out wood.

In several other respects, Fireman's Fund is a vivid contrast to the facts in this case. There the risk had been created by a tenant who stored the chemical and not by the owner who was sought to be held liable; the properties of the chemical were not known to the owner or otherwise obvious to him and the lease forbade the tenant from storing specially dangerous chemicals. Finally, "there was no evidence here of any previous fires" in the landlord's building. Id. at 28.

In our case an able district judge sent the sprinkler issue to a jury under an instruction that is not claimed to be inconsistent with Massachusetts law. The jury returned a result that can easily be supported on the facts and, indeed, would strike many observers as an eminently sensible resolution of a fault allocation problem that has no perfect solution. No error of law being present, this court should certainly not upset this outcome.

B. A different view

The majority formulates the standard for finding that the club had a duty to install sprinklers (a showing that a property owner has "knowledge of a particular danger of fire") in

terms that differ from the instruction the district court delivered to the jury:

[A] building owner may be held liable for negligently failing to install fire protection devices if he uses dangerously inflammable material that create a foreseeably substantially greater probability of a fire spreading.

This narrower formulation of when a property owner may be required to install sprinklers seems consistent with the state's law. The closest case on point indicates that the duty to install sprinklers is linked to "materials or fluids of an inflammable nature, such as celluloid, naphtha and benzine," that were so dangerous that the fire department considered a sprinkler system necessary for safe storage. See Little v. Lynn & Marblehead Real Estate Co., 16 N.E.2d 688, 690, 692 (Mass. 1938). Furthermore, this formulation is in line with those decisions from other jurisdictions that have squarely addressed this duty.¹⁵

¹⁵ The cases cited at trial and on appeal for the proposition that there can be a duty to install sprinklers or other fire prevention equipment all concern the duty that one landowner owes to another, abutting landowner. It is the general rule in negligence cases, however, that "no action [can] be founded upon the breach of a duty owed only to some person other than the plaintiff." See W. Page Keeton, Prosser and Keeton on Torts, § 53, at 357 (5th ed. 1984). The parties do not point to any cases, nor have I been able to discover any, involving a duty of a customer to install sprinklers for the protection of the manufacturer of a defectively designed product. Nonetheless, because neither party has raised this issue on appeal, I leave an examination of the legal basis of this duty to later cases and instead assume that the duty abutting landowners owe each other is an appropriate analogy for

See, e.g., Comfort v. Stadelman Fruit, Inc., 592 P.2d 213, 220 (Or. 1979); Mermod, Jaccard & King Jewelry Co. v. Hellmuth, Obata & Kassabaum, Inc., 615 S.W.2d 93, 96 (Mo. Ct. App. 1981) (quoting Comfort with approval) (rejecting argument that a high quantity of combustibles--defined simply as things that will burn--was enough to create a duty to install sprinklers because there was no showing that the defendant had stored "explosives, highly inflammable chemicals or materials, or oily rags").

Although the instruction stated the law correctly, the more difficult question is whether it was proper to put the sprinkler issue to the jury. There must be both a legal and an evidentiary basis for an instruction before it may be given to the jury. See Sullivan v. Nat'l Football League, 34 F.3d 1091, 1107 (1st Cir. 1994). My colleagues point to a mix of facts that they believe provide the evidentiary justification for the sprinkler instruction and verdict. I disagree with that view because it relies on facts (a strong heat source, a prior fire, the effectiveness of the precautions taken) that were only relevant to the general comparative negligence instruction. By the terms of the court's instructions, the failure to install sprinklers could become part of the comparative negligence mix only if the jury found that the club had a duty to install

the duty that the club owed to Saunatec in this case.

sprinklers because it "use[d] dangerously inflammable material that create[d] a foreseeably substantially greater probability of a fire spreading." The presence of such material, and not the other facts cited by my colleagues, is the sole basis for the duty to install sprinklers. I find no evidence that creates a jury question on the presence of such a dangerously inflammable material.

The dried out wood that lined the sauna room was drier and more combustible than usual as a result of the normal operation of the heater.¹⁶ This is not a sufficient factual basis for imposing a duty to install sprinklers. Materials do not become "dangerously inflammable" merely because they will burn when exposed to fire.¹⁷ See Centraal Stikstof Verkoopkantoor N.V. v. Pensacola Port Auth., 205 F. Supp. 724, 728 (N.D. Fla. 1962) (noting that duty cannot be based upon a finding that a material was "highly combustible, i.e., [it] will burn if ignited");

¹⁶ The evidence indicated that the wood in most homes throughout the northeast is dry because of the long heating season, though that wood is not as dry as wood subject to the high temperatures of a sauna.

¹⁷ Evidence at trial indicated that Saunatec itself was relatively unconcerned with the danger posed by dry wood in saunas. Saunatec knew that the normal operation of a sauna would dry the wood in the room and create precisely the situation that existed in the club at the time of the fire. Nonetheless, Saunatec did not recommend that purchasers of its heaters replace the wood periodically nor did it recommend the installation of sprinklers in cases such as this one where sprinklers were not required by building codes.

Fireman's Fund, 649 F.2d at 23, 27-28 (refusing to find duty even though vapor rub stored on defendant's premises would burn at a significantly lower temperature than wood or paper); Hellmuth Obata & Kassabaum, Inc., 615 S.W.2d at 96 (holding no duty to install sprinklers where company stored combustible items such as paper, fabric samples, and solvents for office cleaning). Absent some evidence that the wood in the sauna was a "dangerously inflammable or explosive or hazardous material[] . . ., [such] as oil-soaked sawdust," that wood cannot support a duty to install sprinklers. Comfort, 592 P.2d at 220-21 (noting that it "cannot be said as a matter of law that there is such great or foreseeable danger in maintaining premises made of wood so as to make every person liable for fire spreading to adjoining premises unless" the owner has installed fire protection equipment).

A duty to install sprinklers is an onerous one, usually imposed upon landowners by ordinance or statute in special circumstances, and not by the common law when the material involved is so commonplace as dried out wood in the sauna room of a health club. I am not surprised, therefore, that I could not find any case that would support a duty to install sprinklers in a situation involving the materials we have here.¹⁸ I conclude,

¹⁸ Though Saunatec points to a number of cases--including two applying Massachusetts law--that it claims support the sprinkler duty here, those cases do not support the duty. See, e.g., Hanover Ins. Co. v. Charles D. Nolan & Sons, Inc., 1998 WL

therefore, that the sprinkler instruction should not have been given. Although this error was not harmless, see, e.g., Moulton v. Rival Co., 116 F.3d 22, 26 (1st Cir. 1997), there would be no need for a new trial because of the clarity of the jury instructions and the verdict form. The jury ascribed 23% of the total fault to the club's failure to install sprinklers. Consequently, I would remand to increase Saunatec's percentage fault to 88% with a corresponding adjustment in the judgment against it.

VII. Conclusion

For the reasons set forth above, the judgment in the district court is:

Affirmed

77918 (Mass. Super. 1998) (addressing different issue from that raised by Cigna, namely the duty to maintain an already installed sprinkler system); Thomalen v. Marriott Corp., 845 F. Supp. 33 (D. Mass. 1994) (same); Brodrick Moving & Storage Co. v. Moorer, 685 S.W.2d 75 (Tex. Ct. App. 1984) (issue of duty to install sprinklers not before the court because defendant only challenged the sufficiency of evidence to support adverse verdict and did not challenge jury instruction indicating it could breach its duty of care through a failure to install sprinklers); United States Borax & Chem. Corp. v. Archer-Daniels-Midland Co., 506 N.W.2d 456 (Iowa Ct. App. 1993) (same).